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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/825,242

04/02/2001

Stephen Eisenberg

019496-001810US

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01/06/2004

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EXAMINER

BRUSCA, JOHN S

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 01/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary

Application No.

09/825,242

Applicant(s)

EISENBERG ET AL.

Examiner

John S. Brusca

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35,37-43,48,49,52 and 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35,37-40,42,43,48,49 and 53 is/are rejected.
- 7) ☒ Claim(s) 41 and 52 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The rejection of claims 35, 40, 41-43, and 52 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention in the Office action mailed 24 September 2003 is withdrawn in view of the amendment filed 08 December 2003.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 35, 37-40, 42, 43, and newly filed 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Desjarlais et al. (reference DK in the information disclosure statement filed 02 April 2001).

The claims are drawn to a method of designing and synthesizing a zinc finger protein comprising three zinc fingers by using a database that comprises a plurality of zinc finger protein sequences in which the zinc finger domains are correlated with their respective DNA binding target.

Desjarlais et al. shows a database in figure 1 that comprises two zinc finger protein sequences and correlates each of the three zinc finger domains with a DNA binding target. Desjarlais et al. shows in figures 3 and 4 that after synthesis, the zinc finger proteins bind to their expected DNA target.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desjarlais et al. (reference DK in the information disclosure statement filed 02 April 2001).

The claims are drawn to computer programs and computers that perform a method of designing a zinc finger protein comprising three zinc fingers by using a database that comprises a

plurality of zinc finger protein sequences in which the zinc finger domains are correlated with their respective DNA binding target.

Desjarlais et al. shows a database in figure 1 that comprises two zinc finger protein sequences and correlates each of the three zinc finger domains with a DNA binding target. Desjarlais et al. shows in figures 3 and 4 that after synthesis, the zinc finger proteins bind to their expected DNA target. Desjarlais et al. does not show computers and programs that assemble and utilize their database.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to automate the generation and use of their database because it is obvious to one of ordinary skill in the art to automate a process (see MPEP 2144.04).

Double Patenting

8. The rejection of claim 41 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,453,242 in the Office action mailed 24 September 2003 is withdrawn in view of the arguments presented in the amendment filed 08 December 2003.

The provisional rejection of claims 35, 41, 48, 49, and 52 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22, 32, 44, and 46 of copending Application No. 10/113424 is withdrawn in view of the arguments presented in the amendment filed 08 December 2003.

Response to Amendment

9. In the arguments filed with the amendment of 08 December 2003, the applicants state that Dejarlais et al. does not show steps b, c, and d of claim 35, however Dejarlais et al. shows

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provided target sites for their method in figure 1, correspondence between the fingers and the target sites in figure 1, and figure 1 further shows zinc finger proteins that simultaneously bind each triplet of the target sites.

10. In the arguments filed with the amendment of 08 December 2003, the applicants state that the cited claims in U.S. Patent No. 6,453,242 and copending application No. 10/113424 do not comprise or cover step a of the instant claims. This argument is persuasive and the double patenting rejections have been withdrawn. The applicants have further stated that there is a bar under 35 U.S.C. 121 for the double patenting rejections in the previous Office action. Upon further consideration it is agreed that a bar under 35U.S.C. 121 exists for instant claims 48 and 49. However instant claims 41 and 52 are drawn to a combination of use of a zinc finger database and an algorithm that selects a subset of target sites were not pending at the time of restriction in parent Application No. 09/229007. As such, the bar for double patenting under 35 U.S.C. 121 does not apply to claims 41 and 52 because the bar is not applied to subject matter that was not claimed at the time of the restriction requirement (see *Geneva Pharmaceuticals Inc v. GlaxoSmithKline PLC*, 68 USPQ2d 1865(CAFC 2002)).

Allowable Subject Matter

11. Claims 41 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

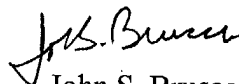
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Brusca whose telephone number is 703 308-4231. The examiner can normally be reached on M-F 8:30-5:00. On approximately 12 January 2004 Art Unit 1631 will move to the new USPTO Alexandria, VA facility. At that time the phone number of the examiner will change to (571) 272-0714. Phone calls to the previous phone number will be referred to the new phone number for 60 days after the move date.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703 308-4028. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0196.



John S. Brusca
Primary Examiner
Art Unit 1631